

**LOS OSOS WASTEWATER PROJECT
TECHNICAL ADVISORY COMMITTEE**

San Luis Obispo County Department of Public Works



PRO/CON ANALYSIS ON PROJECT ALTERNATIVES

WORKING DRAFT

Updated June 15, 2007

LOS OSOS WASTEWATER PROJECT TECHNICAL ADVISORY COMMITTEE

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TREATMENT PLANT SITES

Cemetery

ENGINEERING & WATER RESOURCES

CRITERIA	PROS	CONS
Sufficient in size to meet environmental and potential future expansion needs	Site is large and preliminary review indicates all of the property is usable with the exception of the cemetery operation and its potential expansion area, as well as a known archaeological site.	The property is partially occupied by a business enterprise which may expand use on property.
	Adjacent to other candidate plant sites – potentially advantageous for future expansion options	A known archaeological site is located on the property
Minimize fluid transport costs	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area
	Located mid-way between town and potential spray fields	Located distant from the potential Broderson leach field site
Minimize land costs, to include environmental mitigation costs	Due to non-urbanized land use, the land value is less.	A viable business enterprise currently occupies a portion of the property and may expand to include a larger portion of the property in the future.
		Site located within 500 feet of a low density residential neighborhood
Site conditions with regards to constructability	Site is level and soils are suitable for construction	
	Water table is not an apparent construction issue at this site	

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Cemetery

ENVIRONMENTAL

CRITERIA	PROS	CONS
Construction impact	Low population Density	Erosion
	Construction Traffic out of town	
Community impact	Low population density	Adjacent to Funeral Events
	Natural Screening	Unknown expansion of cemetery
Impact on biological resources	No apparent habitat value	Have to cross Los Osos Creek
System failure risk	Adequate for on-site containment	Proximity to Warden Lake
Impact on archaeological resources		Previously identified Archeological site
Energy Use	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and policies	Compatible	
Agriculture Land Use	Non-Ag	
Growth Inducement		Potential for plant expansion could be growth inducing

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Cemetery

FINANCIAL

CRITERIA	PROS	CONS
Capital Costs <ul style="list-style-type: none"> Land Acquisition Cost of road impacts, repairs Cost implications to collection system, piping Flexibility for future expansion 	Less cost for road access due to proximity to LOVR	Cemetery occupies ~19A of 47.5; they require an additional 10A for expansion. Of the 17.5A remaining, ~8-9A are unusable (archeological area). This leaves ~8.5A (18%) usable land.
		Willingness of seller is highly questionable
		Cost of piping wastewater to treatment plant
		Little or no room for future expansion
		Construction nuisance (air quality, noise, traffic, visual impacts) due to proximity to cemetery
Operation & Maintenance <ul style="list-style-type: none"> Energy requirements 	Proximity to farms for ag in-lieu or ag exchange	Ongoing nuisance to cemetery (air quality, odors, noise, traffic, visual impacts, light pollution)
		Site does not allow for cost-saving disposal or alternative energy options
Financial Risks <ul style="list-style-type: none"> Potential costs relating to system failures 		No space for storage to mitigate system failure risks
Funding Factors <ul style="list-style-type: none"> Potential for revenue generation 		Insufficient acreage for revenue-generating options

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TREATMENT PLANT SITES

Giacomazzi

ENGINEERING & WATER RESOURCES

CRITERIA	PROS	CONS
Sufficient in size to meet environmental and potential future expansion needs	Site is large and preliminary review indicates all of the property is useable	
	No apparent environmental issues present that would constrain development and expansion options	
	Adjacent to other candidate plant sites, this may be advantageous for future expansion options.	
Minimize fluid transport costs	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area
	Located mid-way between town and potential spray fields	Located distant from the potential Broderson leach field site
Minimize land costs, to include environmental mitigation costs	Due to non-urbanized land use, the land value is less	
	Reduced potential for odor control	
	Construction traffic out of town	
Site conditions with regards to constructability	Site is level and soils are suitable for construction	
	Water table is not an apparent construction issue at this site	

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Giacomazzi

ENVIRONMENTAL

CRITERIA	PROS	CONS
Construction impact	Low population density	
	Construction traffic out of town	
Community impact	Low population density	
	Natural Screening	
Impact on biological resources		Have to cross Los Osos Creek
System failure risk	Adequate for on-site containment	Proximity to Warden Lake
Impact on archaeological resources		Unknown Archeological sites
Energy Use	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and policies	Compatible	
Agriculture Land Use		Loss of Ag Land
		SRA
Growth Inducement		Potential for plant expansion could be growth inducing

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Giacomazzi

FINANCIAL

CRITERIA	PROS	CONS
Capital Costs <ul style="list-style-type: none"> Land Acquisition Cost of road impacts, repairs Cost implications to collection system, piping Flexibility for future expansion 	Approximately 16-18 of 38 acres (45%) are usable Potentially willing seller Allows for cost-reducing treatment and solids options (e.g. ponds, composting) Moderate cost to improve road access Short distance to farms for ag in-lieu/ exchange Allows for future expansion Site allows for additional storage to mitigate system failure risks	<ul style="list-style-type: none"> Cost to build intersection with LOVR Cost of piping wastewater to treatment plant
Operation & Maintenance <ul style="list-style-type: none"> Energy requirements 	Proximity to farms for ag in-lieu or ag exchange	
Financial Risks <ul style="list-style-type: none"> Potential costs relating to system failures 	Allows for storage to mitigate system failures	
Funding Factors <ul style="list-style-type: none"> Potential for revenue generation 	Space for potential revenue- generating projects - Site is suitable for alternative energy, which may attract grants	

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TREATMENT PLANT SITES

Branin

ENGINEERING & WATER RESOURCES

CRITERIA	PROS	CONS
Sufficient in size to meet environmental and potential future expansion needs	Adjacent to other candidate plant sites, this may be advantageous for future expansion options	Shape, slope and size of property limit development and expansion options
		Proximity to sensitive environmental areas may limit development and expansion options
Minimize fluid transport costs	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area Located distant from the potential Broderson leach field site
	Located mid-way between town and potential spray fields	
Minimize land costs, to include environmental mitigation costs	Due to non-urbanized land use, the land value is less	
	Less potential for odor control	
Site conditions with regards to constructability	A portion of the site is level and has soils that are suitable for construction	
	Water table is not an apparent construction issue at this site	

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Branin

ENVIRONMENTAL

CRITERIA	PROS	CONS
Construction impact	Low population Density	Erosion
	Construction Traffic out of town	
Community impact	Low population density	
	Natural Screening	
Impact on biological resources		Have to cross Los Osos Creek
System failure risk		Proximity to Warden Lake
		May not be adequate for on-site containment
Impact on archaeological resources		Small known archeological site
Energy Use	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and policies	Compatible	Loss of ag land
		SRA
		May be under Williamson Act
Agriculture Land Use		
Growth Inducement		Potential for plant expansion could be growth inducing

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Branin

FINANCIAL

CRITERIA	PROS	CONS
Capital Costs <ul style="list-style-type: none"> Land Acquisition Cost of road impacts, repairs Cost implications to collection system, piping Flexibility for future expansion 	Cost/ acre should be low due to site constraints	Available space limits options for treatment plant
		Insufficient space for future expansion, and/or disposal/ reuse options
		High risk of liquefaction and seismically-induced settlement – hydroconsolidation
		Cost of piping wastewater to treatment plant
		High costs for road access
Operation & Maintenance <ul style="list-style-type: none"> Energy requirements 	Proximity to farms for ag in-lieu/ exchange	
Financial Risks <ul style="list-style-type: none"> Potential costs relating to system failures 		
Funding Factors <ul style="list-style-type: none"> Potential for revenue generation 	Potential wetlands for storage, which may attract grants	

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TREATMENT PLANT SITES

Tri-W

ENGINEERING & WATER RESOURCES

CRITERIA	PROS	CONS
ENGINEERING & WATER RESOURCES		
Sufficient in size to meet environmental and potential future expansion needs		Site is small and constrained in terms of future expansion options
		No room for expansion for ancillary operations, such as bio-solids treatment
Minimize fluid transport costs	Located within the collection system area	Located farthest away from the spray fields
	Located in close proximity to potential Broderon leach field	
Minimize land costs, to include environmental mitigation costs	LOCSD currently owns this property	Due to the proximity to near-by residence, engineered odor control features will be required
Site conditions with regards to constructability	Engineering work and preliminary site work already performed	Site requires higher construction costs

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Tri-W

ENVIRONMENTAL

CRITERIA	PROS	CONS
Construction impact		Downtown traffic Noise, dust
Community impact	Resource park	High population density Partial visual obstruction of Morro Rock
Impact on biological resources	Graded & conditions mitigated No creek crossing for wastewater	ESHA
System failure risk		Proximity to Bay Site may not be adequate for on-site containment
Impact on archaeological resources	Tribal agreements in place	
Energy Use	No pumping into town	Pumping out of town Less potential for alternative energy
Land use plans and policies	Compatible	Inconsistent with LO vision statement
Agriculture Land Use	Non-Ag	
Growth Inducement	Limited expansion capability	

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Tri-W

FINANCIAL

CRITERIA	PROS	CONS
Capital Costs <ul style="list-style-type: none"> Land Acquisition Cost of road impacts, repairs Cost implications to collection system, piping Flexibility for future expansion 	Citizens currently own the property	Only 36% usable land Comparable land value estimated to be very high Property currently under litigation Cost to increase electrical capacity
	Central location reduces cost of collection piping	Proximity to church, library, community center, and residential areas Road impacts due to heavy vehicle traffic through main thoroughfare. Possible need to expand LOVR Increased cost of piping treated water to out of town sprayfields Limited space for future expansion or energy alternatives
Operation & Maintenance <ul style="list-style-type: none"> Energy requirements 		Site necessitates treatment with high energy requirements Site does not allow for alternative energy options
Financial Risks <ul style="list-style-type: none"> Potential costs relating to system failures Site impacts on cost to mitigate seawater intrusion 	Proximity to Broderson leachfield	Limited space for storage to mitigate system failure risks High financial risk in event of system failure due to proximity to Bay
Funding Factors <ul style="list-style-type: none"> Potential for revenue generation 		Limited acreage for revenue-generating options